

HIGH-SPEED STEEL FOR END MILL

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- **European:**

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Abstract of JP5163563

PURPOSE: To obtain a high-speed steel for the end mill excellent in durable machinability with the surface hardness controlled to $\geq 900\text{HV}$ and the core hardness to $\geq 60\text{ HRC}$.

CONSTITUTION: Carbon is infiltrated and diffused into the surface of a high-speed steel contg. 0.4-0.8 by weight of C, $\leq 1.0\%$ Si, $\leq 1.0\%$ Mn, 3.0-5.0% Cr, 5.0-10.0% Mo, 2.0-10.0% W, 2.5-4.0% V, 7.0-10.0% Co and the balance iron and inevitable impurities and fulfilling $\text{W}+2\text{Mo}=18$ to 22%. The steel is further hardened and tempered. Consequently, the steel has a carburized layer of at least 1mm thickness, and the surface hardness is controlled to $\geq 900\text{HV}$ and the core hardness to $\geq 60\text{HRC}$.

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